

IN THE CLAIMS:

1. (Currently Amended) A method of managing additional service information of a subscriber of a mobile station in a mobile communication system, comprising the steps of:

transmitting from an originating mobile switching center (MSC) to a home location register (HLR) a request message for activation/deactivation of said additional service information;

updating said additional service information by said HLR; and,

transmitting from said HLR to an Access Switching Processor (ASP) of said originating MSC a response message responsive to said request message, said response message ~~and~~includes updated information of said subscriber.

2. (Original) The method according to Claim 1, further comprising the step of verifying whether said subscriber is registered for said additional service information in response to said request message received by said HLR.

3. (Previously Presented) The method according to Claim 2, further comprising the step of notifying the ASP of said originating MSC if said subscriber is

not registered for said additional service.

4. (Original) The method according to Claim 1, wherein said additional service information includes a call forwarding request, a voice mail request, a three way calling request, and a caller identification feature request.

5. (Original) The method according to Claim 1, wherein said request message comprises:

a mobile station identification number (MIN);
a mobile station serial identification number (ESN); and,
said MSC identification number.

6. (Original) The method according to Claim 5, wherein said request message further comprises:

feature code input information of said mobile station inputted by said subscriber;
said originating MSC capability; and,
current feature activation status information.

7. (Original) The method according to Claim 1, wherein said response message having a preselected set of message types comprises:

a mobile station identification number (MIN);

a mobile station serial identification number (ESN);

qualification information for said MSC to update the information of said subscriber;

authorization notification for indicating reasons for denying the activation of said additional service information of said subscriber by said HLR; and,

de-authorization notification for suppressing a re-registry of said denied subscriber for a predetermined time period.

8. (Original) A method of managing additional service information of a subscriber in a mobile communication system, comprising the steps of:

transmitting from an access switching processor (ASP) of an originating mobile switching center (MSC) to a home location register (HLR) coupled to said MSC a request message to change the additional service information of said subscriber;

updating said additional service information by said HLR in response to said request message;

transmitting from said HLR to said ASP a response message responsive to said request message, said response message includes said updated information;

transmitting from said ASP to a visitor location register (VLR) coupled to said MSC said updated information received from said HLR; and,

transmitting an update completion message to said ASP to notify the receipt of said updated information by said VLR.

9. (Original) The method according to Claim 8, further comprising the step of verifying whether said subscriber is registered for said additional service information.

10. (Original) The method according to Claim 9, further comprising the step of notifying said originating MSC if said subscriber is not registered for said additional service information via said response message.

11. (Original) The method according to Claim 8, wherein said request message comprises:

a mobile station identification number (MIN);

a mobile station serial identification number (ESN); and,

said MSC identification number.

12. (Original) The method according to Claim 8, wherein said request message further comprises:

feature code input information of said mobile station inputted by said subscriber;

said originating MSC capability; and,
current feature activation status information.

13. (Original) The method according to Claim 8, wherein said response message having a preselected set of message types comprises:

a mobile station identification number (MIN);

a mobile station serial identification number (ESN);

qualification information for said MSC to update the information of said subscriber;

authorization notification for indicating reasons for denying the activation of said additional service information of said subscriber by said HLR; and,

de-authorization notification for suppressing a re-registry of said denied subscriber for a predetermined time period.

14. (Original) The method according to Claim 8, wherein said additional service information includes a call forwarding request, a voice mail request, a three way calling request, and a caller identification feature request.